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ABSTRACT

The study forecasts the utilization of the Continuing Education Unit (CEU) in conferences, institutes, short courses, workshops, seminars, and special training programs within the Southern Association of Colleges and Schools. (A CEU is defined as 10 contact hours of participation in an organized continuing education experience.) The methodology section discusses questionnaire design, panel selection, questionnaire processing, and data tabulation. Data is presented in four subject areas: administration, faculty, finance, and nonacademic utilization. Data from all three rounds of the Delphi process are presented. The percentage of panel members stating that a prediction should or should not occur, as well as the panel's assigned probability indicated by the median, lower quartile, and upper quartile of each prediction is presented. Each prediction is followed by a table indicating the information collected in each round, a general discussion concerning data presented in the table, and implications of comments made by panel members. Based on data collected, by 1980 the CEU will be: (1) awarded by most accredited colleges and universities, (2) used to measure faculty work load, (3) be supported financially by businesses and professional societies, and (4) become the basis for updating and relicensing for major professional organizations. (MW)

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FUTURE UTILIZATION OF THE CONTINUING EDUCATION UNIT

In Conferences, Institutes, Short Courses, Workshops, Seminars, and Special Training Programs within the Southern Association of Colleges and Schools

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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The Southern Association of Colleges and Schools is one of six regional associations for voluntary accreditation of schools. The Association consists of four commissions, one each for colleges, secondary schools, elementary schools, and occupational education institutions. The Association aiso contains a research component which crosses all commission boundaries for education improvement projects. Total membership in the Association, including all levels of affiliation within each commission, is approximately 9,800.

Preface

One of the most significant developments in the area of continuing and adult education and extension courses and programs is the Continuing Education Unit (CEU). It is the intent of the CEU to give proper recognition to the individual student for educational effort expended in adult and continuing education courses and programs of a non-credit nature and to provide a basis for institutional accountability in these areas of study.

Developed by a national task force, the CEU was included in the revised Standard Nine (Special Activities) of the *Standards of the College Delegate Assembly* adopted in December of 1971. As an outgrowth of the implementation of Standard Nine and the utilization of the CEU by the member institutions of the College Delegate Assembly of the Southern Association of Colleges and Schools, an in-depth study has been made by John Rhodes on the future of the Continuing Education Unit, individually and institutionally, regionally and nationally. The study was conducted during the 1972-73 academic year.

This summary of "Future Utilization of the Continuing Education Unit in Conferences, Institutes, Short Courses, Workshops, Seminars, and Special Training Programs within the Southern Association of Colleges and Schools" is presented to give interested college and university personnel an insight into the CEU concept as it is now being used and, based upon the limited experiences with the unit, to make some valid predictions as to the utilization of the CEU by 1980.

The Commission on Colleges is pleased to publish this study.

GORDON W. SWEET
Executive Secretary
Commission on Colleges
Southern Association of Colleges and Schools

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Introduction

The population character of the United States has undergone drastic changes since 1900. At that time 95 percent of the population was classified as rural, and 38 percent of the labor force was in farming. Current projections by the U.S. Department of Labor are that by 1975 only 4 percent of the national labor force will be in farming. Technological advancements and mechanization of agricultural techniques have displaced millions of American farm laborers, resulting in a mass exodus of people to urban areas in search of employment. Currently 70 percent of the population is living in urban areas, and it is predicted that by 1980 an additional 10 percent will be living in metropolitan complexes.*

There have been many other alterations in the American social order that are having significant and as yet undefined effects on institutions of higher education. Demographic trends such as an increasing heterogeneity of the American population, changes in the family structure, increased mobility, changes in birth and mortality rates, and complex educational needs are bringing many diverse and seemingly unrelated problems to the doorsteps of colleges and universities. Paralleling these trends, strong forces for change at work within the society have created new patterns of development within higher education. Basically the restructuring of education is being guided by the changing nature of the American world of work. Professionalism, work-oriented education, and increasing leisure time are prime factors in the new demands being placed on educational institutions. In seeking to respond to a multitude of continuing education and public service needs, institutions are struggling for guidance which will help them to meet these demands through a reasonable and respectable new academia. What seems to be needed is a legitimate unit of measure that will be acceptable to the established academic community, yet flexible and effective in responding to the continuing education needs of the adult public. In many ways the situation is similar to that which gave rise to the Carnegie Unit in secondary education during the early part of the century.

At the present time a large majority of institutions are offering a wide variety of services such as conferences, institutes, short courses, workshops, seminars, and special training programs, which are not related to degree programs. Since these depart in a number of ways from the pattern of degree-related courses, the units of accountability which are used in traditional programs (semester or quarter hours) are difficult if not impossible to apply to these new activities and, if they could be applied, would doubtless lead to confusion between the two types of programs. A uniform method of measurement of such programs is needed for calculating funding, faculty or student work load, and equivalent full-time students. Also in cases where attendance in such programs might be related to either academic or vocational objectives, such a method is needed for determining appropriate credit. A unit to serve these purposes has been suggested and has been called the Continuing Education Unit.

Statement of Problem

As a result of a National Planning Conference of interested agencies and associations, a National Task Force on the Continuing Education Unit was formed

* Grover J. Andrews, "Public Service in Higher Education: A Status Study of Accreditation in Adult and Continuing Education Programs" (Ed.D. diss., North Carolina State University, 1972).

in 1968 under the leadership of the National University Extension Association. Members of the task force were drawn from educational institutions, professional organizations, business, and industry. By 1970, the group had reached consensus on the definition of a Continuing Education Unit and had published an interim statement which contained suggestions for its use in the measurement, recording, reporting, accumulation, transfer, and recognition by adults in professional continuing education, vocational training, and adult liberal education as well as other programs in adult and continuing education.

Many institutions and agencies gave concrete expression to their interest by developing such programs. The most extensive of these was the adoption by the Commission on Colleges of the Southern Association of Colleges and Schools of a revision of Standard IX which deals with special activities of the colleges and universities. As well as encouraging the development of appropriate innovative and imaginative programs, the revised Standard mandates the use of the Continuing Education Unit in recording such programs and activities in reports to the Association. Effective as of December 1, 1971, Standard IX provides that "non-credit programs should be appropriately identified and recorded by means of the Continuing Education Unit."

Since the Continuing Education Unit (CEU) was not developed until 1970 and because the Southern Association of Colleges and Schools is the only regional accrediting association that has adopted the CEU to date, only a few institutions throughout the country have utilized the Continuing Education Unit. However, other regional accrediting associations and institutions outside the Southern Association region are following the development of the CEU with great interest.

Numerous inquiries by member institutions of the Association as a result of problems encountered in the introduction of the CEU have indicated the need for the development of extensive guidelines. The Association has developed interim guidelines in response to these problems. If the goal of uniformity is to be achieved throughout the nation in the measurement and the recording of special programs and activities, not only in educational institutions but also in professional organizations and business and industry, national guidelines based upon broad and competent research must be developed.

Statement of Purpose

It was the purpose of this study to forecast the utilization of the Continuing Education Unit in conferences, institutes, short courses, workshops, seminars, and special training programs within the Southern Association of Colleges and Schools.

The specific objectives were to (1) develop a list of predictions concerning the utilization of the CEU by 1980 in administration, faculty, financial, and non-academic areas, and (2) seek a consensus among the members of an expert panel on the probability that each prediction will occur by 1980.

The great geographic distance between the experts chosen for participation in this study demanded a research tool which would allow forecasting the use of the CEU, utilizing the national mail service. The fact that the Southern Association of Colleges and Schools regulates the activities of more than 600 institutions of higher education throughout eleven states was an additional reason making the utilization of the committee method of forecasting in this study not feasible. The Delphi Technique was chosen as the most appropriate method. The Delphi Technique reduces the problems of forecasting by committee while retaining the advantage of making maximum use of expertise in forecasting the future. It starts

with the selection of a panel of judges. Each member of the panel should be an expert on the subject under study. The discussion is carried on through the use of questionnaires which permit the exchange of information among the panel members and at the same time conceal the identity of persons making the various comments. Only the individual conducting the study is aware of the opinions of each panel member, and he does not participate in the development of the final conclusions. Under optimum conditions, members of the panel would not be aware of the identity of the other panel members, but if this is unavoidable, the desired conditions can be maintained by instructing the panel members not to discuss the study with one another.

The questions that form the basis for the study should be formulated to eliminate as nearly as possible every vestige of ambiguity. The first questionnaire sent to each panel member contained the necessary instructions to guide the panel members and provide the necessary administration. Each member is required to give his best estimate of the answer to each question.

When the questionnaires are returned by the panel members, they are tabulated to determine the median and interquartile range of the answers received from all panel members on the first questionnaire. Each member is then asked to review his first estimate and change it, if he is so inclined, in view of the information about the group's previous response. Each panel member is now instructed that if his answer is still outside the range of the interquartile, he should present information which substantiates maintaining a relatively extreme position. This will require substantiating comments from 50 percent of the panel members.

The third questionnaire is prepared upon receipt of the second. It again will contain the original questions as well as a newly computed median and interquartile range. A new item is now injected into the process. A summary of all comments made on the second questionnaire is included for the information of all panel members.

Each member now reviews all information given and adjusts his answer to each question if he alters his position. Each member whose answer now is within the interquartile range is requested to provide comments as to why the additional information he has received did not sway him to move his answer to one of the relatively extreme positions. He is, in fact, asked to supply comments that refute the comments submitted on the second questionnaire and any additional information available to him which may be unknown to other members or which was not properly evaluated by them.

Delphi studies have been consistent in that they show a convergence of answers as each study progresses through the series of questionnaires; however, it cannot be expected that the answers will coincide. As each panel member was judged to be an expert in the field under study, any answer submitted might in fact be the most nearly correct; therefore, consensus of opinion of a number of experts must be given weight but not to the exclusion of all other answers.

The preceding description of the Delphi Technique was given to enhance a fuller appreciation of the references to follow and of the methodology which was used in this study. The primary reasons why the Delphi Technique was selected for this study are:

(1) the predictions required were highly subjective;

(2) it was not feasible to assemble a committee providing the input that may be obtained from the 50 panel members;

(3) since the CEU is a new unit of measure and diverse in use, no one

individual was seen as being capable of predicting the array of uses that could be suggested;

(4) other predictive techniques could not be viewed as being valid.

Parameters of the Study

A. Because of the newness of the CEU and because it applies directly to only the 603 (at the time of this study) higher educational institutions within the Southern Association of Colleges and Schools, this study will be confined to member institutions in the eleven states that make up the Southern Association.

B. Since Southern Association member institutions participating in special activities are the only organizations required to follow Standard IX, the non-academic users of the CEU, such as private businesses and non-accredited enterprises, will not be considered.

C. This study will not deal with all uses of the CEU suggested in Standard IX. It will deal with the CEU only as it relates to conferences, institutes, short courses, workshops, seminars, and special training programs.

Definition of Terms

Continuing Education Unit—A CEU is defined as ten contact hours of participation in an organized continuing education (adult or extension) experience under responsible sponsorship, capable direction, and qualified instruction.

Conference—A general type of meeting usually of one or more days duration, attended by a fairly large number of people. A conference has a central theme but is often loosely structured to cover a wide range of topics. The emphasis is on prepared presentations by authoritative speakers, although division into small group sessions for discussion purposes is often a related activity.

Institute—Generally similar to a conference, but more tightly structured to provide a more systematic development of its theme, with the emphasis more on providing instruction in principles and techniques than on general information. Participants are usually individuals who already have some competence in the field of interest. Institute programs may have certain continuity, meeting on a yearly basis for example.

Short Course—A sequential offering, as a rule, under a single instructor, meeting on a regular basis for a stipulated number of class sessions over a short period of time (e.g., one to three weeks, etc.). Quizzes and examinations may be given depending upon the determination of requirements. The non-credit course under the public service definition may resemble the credit course in everything but the awarding of credit. It may also be more informal and more flexible in its approach in order to meet the needs of students.

Workshop—Usually meets for a continual period of time over a period of one or more days. The distingushing feature of the workshop is that it combines instruction with laboratory or experimental activity for the participants. The emphasis is more likely to be on skill training than on general principles.

Seminar—A small grouping of people with the primary emphasis on discussion under the leader or resource person or persons. In continuing higher education a seminar is more likely to be a one-time offering, although it may continue for several days.

Special Training Program—A "skill" program which offers a combination of instruction and practice. The approach is usually on a more individualized basis than a workshop.

Methodology

The following sections detail the methodology used in determining the design of the questionnaire, selection of panel members, processing of the questionnaire, and tabulation of the data.

Design of Questionnaire

After gaining a feel of the availability of information and the probable direction of the study, a pre-questionnaire form was developed by the researcher. This pre-questionnaire form was mailed to all ten members of the Southern Association of Colleges and Schools committee on the Continuing Education Unit and to selected members of the National Task Force on the CEU.

These individuals were asked to suggest specific potential developments in categories within the framework of four subject areas—administration, finance, faculty, and non-academic utilization. This mailing was an attempt to generate a list of significant predictions about future utilization of the Continuing Education Unit in each of these major areas. The returned comments were then categorized and edited, and twenty-six predictions were selected for use in the study.

Panel Selection

In any Delphian study, the panel members should represent a high level of expertise in the field under investigation and should be agreeable to the requirements of this forecasting system. Persons meeting these criteria were chosen in consultation with Dr. Grover J. Andrews of the Southern Association of Colleges and Schools. Fifty individuals were judged to be the most knowledgeable about the utilization of the CEU and were invited to participate in the study.

Processing of Questionnaires

The discussion phase of the study involved the use of three questionnaires. Each questionnaire asked the panel members if the prediction should or should not occur and to estimate the probability that the action outlined in each of the twenty-six questions would occur by the year 1980. Although there were twenty-six predictions under study, one question had five parts so that there were actually thirty separate predictions to be reacted to in the first questionnaire.

The predictions were divided into four major fields as follows:

(1) Administration
(2) Faculty
(3) Financial
(4) Non-academic Utilization

Each panel member was advised that his answers and comments would not be made known to other panel members during the study. An identification number was assigned to each participant, and this number was the sole means of identification used on correspondence.

Upon receipt of the first set of responses, a second questionnaire was prepared. The data received were utilized in preparing questions for this second mailing. The second questionnaire displayed the median and the lower and upper limits of the interquartile for the group response to the first questionnaire for each question.

The participants' previous responses were returned for use in comparison.

The second questionnaire asked that each estimate be reviewed in light of the median and interquartile of the group response. Th participant could change or not change his estimate as he deemed the situation demanded. After recording his new estimate, each participant was asked to submit comments justifying any estimate that did not fall within the range of the interquartile. He was advised that these comments would be made available to other panel members but that the source of the comments would not be revealed.

The responses from the second questionnaire were then tabulated, and a third questionnaire was prepared using the data from the second as a basis. A new median and interquartile were established and entered on the questionnaire with the participants' previous answers. All comments were reviewed to prevent duplication, and selected comments from the second questionnaire were entered for the information of other panel members. Again each member was asked to review the new median and interquartile and the comments made by other panel members and to adjust his estimates as the new information might dictate. All participants whose current estimates were now within the interquartile were asked to submit comments supporting their positions. If they were not induced by the previous comments to move to either the lower or upper quartile, it was felt that they might be in possession of information that invalidated the previous comments. They were asked to enter this information on the questionnaire. However, if the panel members did not desire to change any of their predictions or add any additional comments, they were invited to complete a one-page form instead of the questionnaire. The Round III questionnaire was mailed to all fifty panel members. This was done in an effort to get as large a response to Round III as possible.

Tabulation of Data

As questionnaires were returned, each prediction was recorded, and the median and range of the interquartile for each question were determined.

The range of the interquartile is the disparity between the lowest and highest values of the middle 50 percent of the answers. Of the answers, 25 percent are less than the lower end of the range of the interquartile, and 25 percent are greater than the higher end of the range of the interquartile.

Presentation of Data

Data from all three rounds of the Delphi process are presented in this section. Of the fifty panel members, thirty-eight responded to the first round, thirty-two to the second round, and thirty-two to the third and final round. This represents a return of 76 percent for round one and 64 percent for each of the last two rounds.

The percentage of panel members stating that a prediction should or should not occur as well as the panel's assigned probability indicated by the median, lower quartile, and upper quartile of each prediction is presented. Each prediction is followed by a table indicating the information collected in each round, a general discussion concerning data presented in the table, and implications of comments made by panel members.

The chapter is divided into four sections representing the four subject areas reviewed.

Administration

There were twelve predictions relating to the area of administration. This was the largest number of predictions concerning any of the subject areas explored.

Training of CEU Administrators

Prediction 1. What is the probability that the developments caused by the CEU will demand that continuing education administrators be professionally and academically trained in continuing education program development and administration?

TABLE 1
Presentation of Data for Prediction 1

Round I	(N=38)	Round II	(N=32)	Round III	(N=32)
Should Occur 82	Lower Quartile 40	Should Occur 81	Lower Quartile 40	Should Occur 84	Lower Quartile 40
	Median 50		Median 50		Median 50
Should Not Occur 18	Upper Quartile 75	Should Not Occur 19	Upper Quartile 75	Should Not Occur 16	Upper Quartile 75

Discussion of prediction 1. There was no change between Rounds I, II, and III as far as the lower quartile, median, and upper quartile were concerned. There is also very little change concerning the percentage of panel members that thought the prediction should or should not occur. However, the last round data indicate 84 percent of panel members agreed that this prediction should occur. There is a range of 35 percent between the lower and upper quartiles with the median being 10 percent above the lower quartile.

Implications of comments made by panel members. As pointed out by one panel member, special inservice education for continuing education personnel is already taking place in order to follow Standard IX and implement the CEU requirements. Other comments made stressed that the nationwide emphasis on lifelong learning would require continuing education personnel to be more professionally trained.

The median in Round III indicated that there will always be many continuing education personnel trained in other areas of education and transferred into the continuing education field. On-the-job training and experience will always be important.

PERMANENT RECORDS FOR CEU

Prediction 2. By 1980 a majority of accredited colleges and universities will be awarding CEU's and maintaining permanent records for program participants who have earned units.

TABLE 2
Presentation of Data for Prediction 2

Round I	(N=38)	Round II	(N=32)	Round III	(N=32)
Should Occur 100	Lower Quartile 75	Should Occur 100	Lower Quartile 80	Should Occur 100	Lower Quartile 80
	Median 80		Median 80		Median 80
Should Not Occur 0	Upper Quartile 90	Should Not Occur 0	Upper Quartile 90	Should Not Occur 0	Upper Quartile 90

Discussion of prediction 2. This prediction is the only prediction in the entire study for which all the panel members responding to Rounds I, II, and III agree should occur by 1980. The lower quartile increased from 75 percent to 80 percent during the three rounds; however, the median and upper quartile remained constant.

Implications of comments made by panel members. Since the CEU was such a needed measuring device for non-credit activities and since its general acceptance has been beyond all expectations, it follows that colleges and universities will utilize the CEU. All major accrediting associations have expressed an interest in the CEU, and the support of the accrediting associations will bring about acceptance sooner than would otherwise be expected.

ROLE OF REGISTRAR

Prediction 3. The CEU records will be maintained by the institution's registrar.

TABLE 3

Presentation of Data for Prediction 3

Round I	(N=38)	Round II	(N=32)	Round III	(N=32)
Should Occur 89	Lower Quartile 50	Should Occur 91	Lower Quartile 50	Should Occur 91	Lower Quartile 50
	Median 70		Median 75		Median 75
Should Not Occur 11	Upper Quartile 90	Should Not Occur 9	Upper Quartile 90	Should Not Occur 9	Upper Quartile 90

Discussion of prediction 3. It was the opinion of 91 percent of the panel members that the CEU records should be maintained by the institution's registrar. There was no change between the rounds concerning the lower and upper quartiles; however, there was a change of 5 percent between the median in Round I and Round II. An increase of 2 percent was also noticed between Rounds I and II on the number of panel members agreeing that this prediction should occur.

Implications of comments made by panel members. Since the registrar is the official keeper of student records for the entire institution, it seems only logical that CEU records be maintained in this office. The records will need to be accurately maintained and will require audits if the CEU is to be part of the full-time equivalent student account of the institution.

Volume of Record Keeping

Prediction 4. By 1980 the volume of record keeping of CEU achievement will surpass the record keeping for academic credits.

TABLE 4

Presentation of Data for Prediction 4

Round I	(N=38)	Round II	(N=32)	Round III	(N=32)
Should Occur 53	Lower Quartile 30	Should Occur 56	Lower Quartile 50	Should Occur 65	Lower Quartile 50
	Median 60		Median 60		Median 60
Should Not Occur 47	Upper Quartile 90	Should Not Occur 44	Upper Quartile 90	Should Not Occur 35	Upper Quartile 90

Discussion of prediction 4. There was a considerable increase of 20 percent in the lower quartile from Round I to Round II with the lower quartile increasing from 30 to 50 percent. It closed the range between the lower and upper quartiles from 60 percent to 40 percent, and this range was maintained in Round III. This question concerning the volume of CEU records compared to academic records received a 65 percent vote by the participants in Round III that this prediction should occur by 1980.

Implications of comments made by panel members. Life-long learning is already a viable concept for adults, but not all adults will be participating in continuing education activities. Therefore, the number of institutions where the volume of CEU records will exceed the volume of academic records should be small by 1980. Panel members agreed that the time span of seven years will not be sufficient to meet more than a 60 percent probability.

NATIONAL DATA BANK

Prediction 5. A national data record-keeping system and center will be established for individual CEU's.

TABLE 5

Presentation of Data for Prediction 5

Round I	(N=38)	Round II	(N=32)	Round III	(N=32)
Should Occur 68	Lower Quartile 25	Should Occur 72	Lower Quartile 25	Should Occur 72	Lower Quartile 25
	Median 50		Median 50		Median 50
Should Not Occur 32	Upper Quartile 75	Should Not Occur 28	Upper Quartile 75	Should Not Occur 28	Upper Quartile 75

Discussion of prediction 5. There was no change between the predictions made in Rounds I, II, or III as far as the lower quartile, median, and upper quartile were concerned. However, there was a 4 percent increase in the number of participants stating that the national data record-keeping system should be established by 1980. There is a wide range of 50 percent between the lower and upper quartiles in this prediction with the median being 50.

Implications of comments made by panel members. Pointing out the lack of information concerning a CEU record-keeping system was the major reason that panel members thought a regional data bank would be more likely than a national data bank to occur by 1980. Compatible regional data banks can serve as effectively as a national data bank until more information and experience are obtained.

Basis for Full-Time Equivalents

Prediction 6. By 1980 the CEU will become the basis for determining the full-time equivalent non-credit enrollment for institutions of higher education.

TABLE 6

Presentation of Data for Prediction 6

Round I	(N=38)	Round II	(N=32)	Round III	(N=32)
Should Occur 95	Lower Quartile 50	Should Occur 94	Lower Quartile 60	Should Occur 97	Lower Quartile 60
	Median 70		Median 70		Median 70
Should Not Occur 5	Upper Quartile 90	Should Not Occur 6	Upper Quartile 90	Should Not Occur 3	Upper Quartile 90

Discussion of prediction 6. The range between the lower and upper quartiles decreased from 40 to 30 percent during Rounds I and II of the prediction concerning whether or not the CEU would become a basis for determining the full-time equivalent non-credit enrollment for institutions of higher education. However, 97 percent of the panel members participating in Round III thought this prediction should occur by 1980.

Implications of comments made by panel members. In order to fulfill the requirements of Standard IX, the CEU must become the basis for determining the full-time equivalent student account for an institution. The possibility of formula funding for continuing education also places upon the institution a need to utilize the student count in non-credit activities in determining an institution's total effort.

Quality of Continuing Education

Prediction 7. What is the probability that the CEU will cause the quality of continuing education to improve?

TABLE 7
Presentation of Data for Prediction 7

Round I	(N=38)	Round II	(N=32)	Round III	(N=32)
Should Occur 95	Lower Quartile 50	Should Occur 94	Lower Quartile 60	Should Occur 97	Lower Quartile 70
	Median 80		Median 70		Median 80
Should Not Occur 5	Upper Quartile 90	Should Not Occur 6	Upper Quartile 90	Should Not Occur 3	Upper Quartile 90

Discussion of prediction 7. The major change made in estimating the probability that the CEU will cause the quality of continuing education to improve was a 10 percent increase in the lower quartile in each round. The median decreased in Round II but returned to 80 percent in Round III. In Round III, 97 percent of the panel members responding stated that the prediction should occur by 1980.

Implications of comments made by panel members. Continuing education courses where individual CEU's are awarded must meet specific criteria. Therefore, these criteria should improve quality, and as pointed out by one panel member, this is already happening in certain institutions. The potential of funding for continuing education programs has also focused more attention on the quality of continuing education programs.

EQUATING WITH ACADEMIC CREDIT

Prediction 8A. The CEU will be accepted by institutions as equating with academic credit.

TABLE 8

Presentation of Data for Prediction 8A

Round I	(N=38)	Round II	(N=32)	Round III	(N=32)
Should Occur 47	Lower Quartile 20	Should Occur 59	Lower Quartile 20	Should Occur 53	Lower Quartile 20
	Median 50		Median 50		Median 50
Should Not Occur 53	Upper Quartile 70	Should Not Occur 41	Upper Quartile 60	Should Not Occur 47	Upper Quartile 60

Discussion of prediction 8A. Although the median and lower quartile remained the same between Rounds I, II, and III, there was a 10 percent decrease in the upper quartile between Rounds I and II. Whether or not the CEU should or should not be accepted by institutions as equating with academic credit was the major change between the rounds. In Round I, 47 percent agreed that the CEU should not be used by institutions as equating with academic credit, while in Round II the panel had changed to 59 percent and then dropped back to 53 percent in the final round.

Implications of comments made by panel members. Due to the resistance of academic deans the acceptance of the CEU as academic credit will be slow. Some panel members expressed a concern that if the CEU were accepted as academic credit, it would decrease the flexibility of the CEU in non-credit programs.

Satisfying Course Prerequisites

Prediction 8B. The CEU will be accepted by institutions as satisfying course prerequisite(s).

TABLE 9
Presentation of Data for Prediction 8B

Round I	(N=38)	Round II	(N=32)	Round III	(N=32)
Should Occur 79	Lower Quartile 40	Should Occur 81	Lower Quartile 50	Should Occur 81	Lower Quartile 40
	Median 50		Median 50		Median 50
Should Not Occur 21	Upper Quartile 70	Should Not Occur 19	Upper Quartile 60	Should Not Occur 19	Upper Quartile 60

Discussion of prediction 8B. The most significant change in the rounds concerning the CEU satisfying course prerequisites was that there was a 10 percent decrease in the upper quartile between Rounds I and II with the median remaining at 50 percent during each round. There is only a 20 percent variance between the lower and upper quartiles with an 81 percent agreement that the prediction should occur.

Implications of comments made by panel members. The acceptance of the CEU by institutions as satisfying course prerequisites should occur much faster than acceptance as equating with academic credit. Although faculties and governing bodies act very cautiously and slowly, this prediction should occur on a selective basis.

SATISFYING COURSE REQUIREMENTS

Prediction 8C. The CEU will be accepted by institutions as satisfying selected course requirements.

TABLE 10

Presentation of Data for Prediction 8C

Round I	(N=38)	Round II	(N=32)	Round III	(N=32)
Should Occur 68	Lower Quartile 40	Should Occur 72	Lower Quartile 40	Should Occur 72	Lower Quartile 40
	Median 50		Median 50		Median 50
Should Not Occur 32	Upper Quartile 75	Should Not Occur 28	Upper Quartile 75	Should Not Occur 28	Upper Quartile 70

Discussion of prediction 8C. The probability that the CEU will be used to satisfy selected course requirements received no change between the lower quartile and median in any of the rounds. However, there was a 4 percent increase in the percentage of panel members stating that this prediction should occur by 1980 and a 5 percent decrease in the upper quartile between Rounds II and III.

Implications of comments made by panel members. Again it was pointed out by panel members that the acceptance of the CEU as satisfying selected course requirements could destroy the flexibility of response which is a valuable characteristic of non-credit programs. However, if the CEU program(s) happens to satisfy selected course requirements, it should be allowed. This will probably be the exception rather than the rule.

Acceptance toward Undergraduate Degrees

Prediction 8D. The CEU will be accepted by institutions toward undergraduate degrees.

TABLE 11

Presentation of Data for Prediction 8D

Round I	(N=38)	Round II	(N=32)	Round III	(N=32)
Should Occur 55	Lower Quartile 30	Should Occur 66	Lower Quartile 40	Should Occur 65	Lower Quartile 40
	Median 50		Median 50		Median 50
Should Not Occur 45	Upper Quartile 65	Should Not Occur 34	Upper Quartile 60	Should Not Occur 35	Upper Quartile 60

Discussion of prediction 8D. There was an 11 percent increase between Rounds I and II in the percent of panel members stating that CEU's should be accepted toward undergraduate degrees by 1980. There was also a 10 percent increase in the lower quartile between Rounds I and II with a 5 percent decrease in the upper quartile, leaving a 20 percent variance between the lower and upper quartiles.

Implications of comments made by panel members. Many colleges and universities are just beginning to realize the acceptability of giving credit for "life experiences." The CEU should aid in this process, and the increase in non-traditional programs will encourage the acceptance of the CEU toward undergraduate degrees. As pointed out by one panel member, certain kinds of experiences are *prima facie* evidence of mastery of content. In other instances, proficiency gained through participation in non-credit continuing education could and should be validated by examination for use toward degree programs.

ACCEPTANCE TOWARD GRADUATE DEGREES

Prediction 8E. The CEU will be accepted by institutions toward graduate degrees.

TABLE 12

Presentation of Data for Prediction 8E

Round I	(N=38)	Round II	(N=32)	Round III	(N=32)
Should Occur 47	Lower Quartile 15	Should Occur 56	Lower Quartile 15	Should Occur 52	Lower Quartile 20
	Median 25		Median 25		Median 25
Should Not Occur 53	Upper Quartile 60	Should Not Occur 44	Upper Quartile 50	Should Not Occur 48	Upper Quartile 60

Discussion of prediction 8E. The most significant change between Rounds I and II concerning the acceptance of the CEU toward graduate degrees was a 5 percent increase in the lower quartile. The median remained at 25 percent throughout each round, while the upper quartile dropped 10 percent in Round II and then returned to 60 percent in Round III.

Implications of comments made by panel members. Panel members pointed out that graduate faculties are the most conservative of all faculties and are controlled by an organization of conservative deans. Therefore, few if any institutions will accept the CEU as credit toward graduate degrees by 1980.

Analysis of Final Median Data on Administration

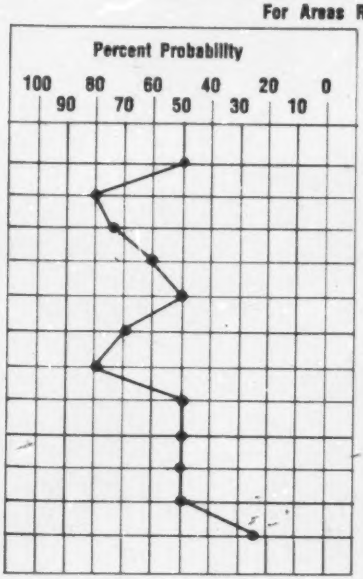
A review of Table 13 below reveals that the median of the panel's final prediction of probabilities for 1980 for areas related to administration varied from a high of 80 percent to a low of 25 percent. This variance of 55 percent between the median of the prediction receiving the lowest percentage probability and the median of the predictions receiving the highest percentage probability indicated a considerable degree of difference between questions in the subject area of administration. More than 50 percent of the panel members thought that all of the predictions should occur by 1980, with predictions 8A and 8E receiving the lowest probability of 53 percent and 52 percent respectively.

The two predictions concerning administration that received the highest median probability were predictions 2 and 7. Prediction 2 indicates that a majority of accredited institutions will be awarding CEU's and maintaining permanent records for program participants who have earned units. Of the panel members responding, 100 percent stated that this prediction should occur by 1980. This was the only prediction in the entire study to receive 100 percent agreement in each round that it should occur. Prediction 7, which asked the question concerning the probability that the CEU will cause the quality of continuing education programs to improve by 1980, received an 80 percent chance of occurring. There was only a 20 percent variance between the lower and upper quartiles on this prediction.

Prediction 5 regarding the probability that a national data record-keeping system and center will be established for individual CEU's by 1980 was the prediction in administration having the widest variance between the lower and upper quartiles. This variance was 50 percent with the lower quartile being 25 percent and the upper quartile being 75 percent. Panel members generally agreed that the acceptance by regional accrediting agencies would have the greatest effect on the probability that a national system would be established by 1980.

TABLE 13

Median of Panel's Final Prediction of Probabilities for 1980 For Areas Related to Administration



1. Training of CEU Administrators
2. Permanent Records for CEU
3. Role of Registrar
4. Volume of Record Keeping
5. National Data Bank
6. Basis for Full-Time Equivalents
7. Quality of Continuing Education

8A. Equating with Academic Credit
8B. Satisfying Course Prerequisites
8C. Satisfying Course Requirements
8D. Acceptance toward Undergraduate Degrees
8E. Acceptance toward Graduate Degrees

Faculty

The subject area concerning the utilization of the CEU by faculty members in 1980 had five predictions.

Measurement of Faculty Work Load

Prediction 9. The CEU will be used to measure faculty work load and participation in continuing education.

TABLE 14

Presentation of Data for Prediction 9

Round I	(N=38)	Round II	(N=32)	Round III	(N=32)
Should Occur 97	Lower Quartile 60	Should Occur 100	Lower Quartile 60	Should Occur 100	Lower Quartile 60
	Median 75		Median 75		Median 75
Should Not Occur 3	Upper Quartile 80	Should Not Occur 0	Upper Quartile 80	Should Not Occur 0	Upper Quartile 80

Discussion of prediction 9. There was no change between the lower quartile, median, and upper quartile on Rounds I, II, or III concerning the probability that the CEU will be used to measure faculty work load and participation in continuing education by 1980. However, there was a 3 percent increase in the number of panel members stating that this prediction should occur, bringing the prediction to 100 percent in favor of the prediction occurring.

Implications of comments made by panel members. A unit of measurement has been needed for many years to accurately assess a faculty member's work load in continuing education. Panel members agreed that accountability of faculty work loads will become even more important in the future, and rapid progress will be made in some states. It was pointed out that some states are already using the CEU to measure faculty work load, and it seems to be a desirable development.

Faculty Recognition

Prediction 10. Faculty recognition for instruction in CEU programs will, by 1980, be equal to recognition for instruction in academic programs.

TABLE 15
Presentation of Data for Prediction 10

Round I	(N=38)	Round II	(N=32)	Round III	(N=32)
Should Occur 89	Lower Quartile 30	Should Occur 88	Lower Quartile 30	Should Occur 88	Lower Quartile 30
	Median 45		Median 50		Median 50
Should Not Occur 11	Upper Quartile 75	Should Not Occur 12	Upper Quartile 70	Should Not Occur 12	Upper Quartile 70

Discussion of prediction 10. Again, there was very little change between the rounds, with only a 5 percent increase in median between Rounds I and II and a 5 percent decrease in the upper quartile. This decrease in the upper quartile changed the variance between the lower and upper quartiles from 45 to 40 percent.

Implications of comments made by panel members. The key word in this prediction seemed to be "equal." One panel member stated that the CEU will probably be recognized in mathematical terms as being equal to "credit" work, but that the "academic ego" and the reluctance to change will hold back the "equal" recognition. Such recognition will come, but there was doubt that it would come by 1980.

FACULTY INCENTIVES

Prediction 11. Faculty incentives for participation in continuing education will increase in direct proportion to the utilization of the CEU by institutions of higher education.

TABLE 16

Presentation of Data for Prediction 11

Round I	(N=38)	Round II	(N=32)	Round III	(N=32)
Should Occur 82	Lower Quartile 40	Should Occur 84	Lower Quartile 40	Should Occur 91	Lower Quartile 40
	Median 50		Median 50		Median 50
Should Not Occur 18	Upper Quartile 80	Should Not Occur 16	Upper Quartile 80	Should Not Occur 9	Upper Quartile 80

Discussion of prediction 11. The probability that faculty incentives for participation in continuing education will increase by 1980 in direct proportion to the utilization of the CEU by institutions of higher education was predicted to be 50 percent. In Round III, however, 91 percent of the panel members stated that this prediction should occur by 1980. There was no change between the lower quartile, median, and upper quartile in Rounds I, II, and III.

Implications of comments made by panel members. Faculty incentives for participation in continuing education programs will increase in direct proportion to the funds allocated to continuing education. Panel members generally agreed that unless the CEU is used as a funding tool to obtain state funds, faculty incentives for participation in continuing education will not increase due to the CEU.

Overload pay for participation by faculty members was viewed by the panel as an excellent method of reward at the present time.

Another observation by a panel member was that the increased activity in continuing education and decreasing enrollment in regular academic programs will force faculty participation in continuing education and therefore focus attention on an equal award system.

Temporary Part-Time Faculty

Prediction 12. The changes that will occur in continuing education because of the CEU will demand a greater number of temporary, part-time faculty members for institutional roles.

TABLE 17

Presentation of Data for Prediction 12

Round I	(N=38)	Round II	(N=32)	Round III	(N=32)
Should Occur 82	Lower Quartile 50	Should Occur 84	Lower Quartile 50	Should Occur 91	Lower Quartile 50
	Median 75		Median 75		Median 75
Should Not Occur 18	Upper Quartile 90	Should Not Occur 16	Upper Quartile 90	Should Not Occur 9	Upper Quartile 90

Discussion of prediction 12. A 40 percent variance between the lower and upper quartiles was maintained between Rounds I, II, and III with no change in median. The only change between the rounds was an increase from 82 to 91 percent of panel members agreeing that the CEU will demand a greater number of temporary, part-time faculty members by 1980.

Implications of comments made by panel members. Continuing education courses of the future will demand more "specialized" types of instruction; therefore, an increase will occur in the utilization of temporary, part-time faculty members. However, it was predicted by some panel members that a larger number of regular, full-time faculty members would be utilized due to decreased enrollments in academic programs.

A greater variety of institutional roles requires highly specialized competencies depending upon experience as well as knowledge. Therefore, certain institutions are already utilizing large numbers of temporary, part-time faculty members.

FACULTY RESPONSIBILITIES

Prediction 13. By 1980 faculty members will assume more responsibility for attendance records and evaluation procedures for students in CEU programs.

TABLE 18

Presentation of Data for Prediction 13

Round I	(N=38)	Round II	(N=32)	Round III	(N=32)
Should Occur 89	Lower Quartile 50	Should Occur 88	Lower Quartile 50	Should Occur 88	Lower Quartile 60
	Median 75		Median 75		Median 75
Should Not Occur 11	Upper Quartile 90	Should Not Occur 12	Upper Quartile 90	Should Not Occur 12	Upper Quartile 90

Discussion of prediction 13. The lower quartile, median, and upper quartile for prediction 12 remained the same during Rounds I and II. However, in Round III the lower quartile increased 10 percent, and the percentage of panel members agreeing that this prediction should occur by 1980 remained at 88 percent.

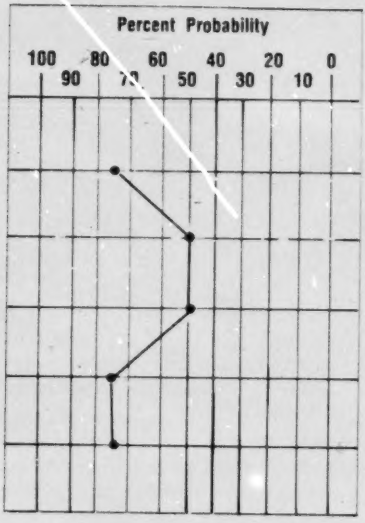
Implications of comments made by panel members. The criteria utilized in awarding the CEU will cause faculty members to be more accountable, to keep more accurate records, and to utilize improved evaluation procedures. The CEU began with emphasis on quantitative measurement, but panel members agreed that improvements in record keeping and evaluation will follow. This is already occurring in some institutions.

Analysis of Final Median Data Concerning Faculty

The subject area concerning the utilization of the CEU by faculty members in 1980 had five predictions. The median of panel members' predictions for the area related to faculty ranged from 50 to 75 percent. Of the five predictions, predictions 9, 12, and 13 had a median probability of 75 percent, and predictions 10 and 11 had a median probability of 50 percent. These facts are indicated in Table 19 below.

TABLE 19

Median of Panel's Final Prediction of Probabilities for 1980 For Areas Related to Faculty



Prediction 9, which indicated that the CEU will be used to measure faculty work load and participation in continuing education activities by 1980, was the only prediction receiving 100 percent agreement among panel members in the subject area related to utilization by faculty. It should also be pointed out that four of the five questions in the area of utilization by faculty had a variance of 40 percent between the lower and upper quartiles. Again, prediction 9 was the only prediction with a lower range of only 20 percent variance between the lower and upper quartiles.

Finance

There were six predictions related to the area of finance

Financial Support from Business and the Professions

Prediction 14. Financial support for continuing education from business and professional societies will increase by 1980 because the CEU will allow institutions to plan more activities fulfilling the needs of the professions and business.

TABLE 20

Presentation of Data for Prediction 14

Round I	(N=38)	Round II	(N=32)	Round III	(N=32)
Should Occur 35	Lower Quartile 50	Should Occur 94	Lower Quartile 50	Should Occur 97	Lower Quartile 60
	Median 70		Median 75		Median 75
Should Not Occur 5	Upper Quartile 85	Should Not Occur 6	Upper Quartile 85	Should Not Occur 3	Upper Quartile 85

Discussion of prediction 14. There were only minor variations between the first, second, and third rounds of prediction 14. There was a 5 percent increase in the median from 70 to 75 percent between Rounds I and II and a 10 percent increase in the lower quartile between Rounds II and III. Also in Round III, 97 percent of the panel members responding stated that this prediction should occur by 1980.

Implications of comments made by panel members. The CEU will allow business and the professional societies the opportunity to meet changes without the necessity of instituting formal academic courses. Financial support usually follows recognition of value, and therefore panel members generally agreed that an increase would occur by 1980.

STATE BUDGETS

Prediction 15. By 1980 the state-appropriated budgets for continuing education will be based on the full-time equivalent student enrollment in CEU programs.

TABLE 21

Presentation of Data for Prediction 15

Round I	(N=38)	Round II	(N=32)	Round III	(N=32)
Should Occur 92	Lower Quartile 40	Should Occur 91	Lower Quartile 40	Should Occur 97	Lower Quartile 50
	Median 50		Median 50		Median 50
Should Not Occur 8	Upper Quartile 75	Should Not Occur 9	Upper Quartile 75	Should Not Occur 3	Upper Quartile 75

Discussion of prediction 15. Prediction 15 followed the pattern of predictions 13 and 14 with very small or no change between the lower and upper quartiles. The variance between the lower and upper quartiles decreased to 25 percent in Round III when the lower quartile increased 10 percent between Rounds II and III. There was also very little change between the percentage of panel members stating that the prediction should or should not occur, with 97 percent of the panel members in the final round agreeing that the prediction should occur by 1980.

Implications of comments made by panel members. Legislators are going to demand some measurable output in the area of continuing education, and the CEU seems to be the best way to measure the effectiveness of what is produced for money secured. Some states are already basing appropriations for continuing education on the full-time equivalent student record in continuing education.

Some panel members thought that the widespread utilization of state-appropriated funds based on the full-time equivalent student account in CEU programs would take longer than seven years.

Funding Patterns and Formulas

Prediction 16. Legislative funding patterns and formulas for continuing education will be significantly revised because of the CEU and CEU records.

TABLE 22

Presentation of Data for Prediction 16

Round I	(N=38)	Round II	(N=32)	Round III	(N=32)
Should Occur 95	Lower Quartile 40	Should Occur 94	Lower Quartile 50	Should Occur 97	Lower Quartile 50
	Median 50		Median 60		Median 70
Should Not Occur 5	Upper Quartile 90	Should Not Occur 6	Upper Quartile 90	Should Not Occur 3	Upper Quartile 90

Discussion of prediction 16. The probability that legislative funding patterns and formulas for continuing education will be revised because of the CEU and CEU records had a 10 percent decrease in the variance between the lower and upper quartiles in Rounds I and II. This was caused by an increase in the lower quartile of 10 percent. The median also increased in each round, but the upper quartile remained at 90 percent throughout.

Implications of comments made by panel members. As the use of the CEU becomes more accepted and its "soundness" can be demonstrated, more legislators and boards will depend on it as a "reasonable" unit of measure. Panel members pointed out that this places a great responsibility on institutions to do a good and "auditable" job in formulating and keeping CEU records.

PUBLIC FUND SUPPORT

Prediction 17. CEU activities will, by 1980, have laid claim to a greater share of public fund support for higher education.

TABLE 23

Presentation of Data for Prediction 17

Round I	(N=33)	Round II	(N=32)	Round III	(N=32)
Should Occur 84	Lower Quartile 50	Should Occur 84	Lower Quartile 50	Should Occur 84	Lower Quartile 50
	Median 70		Median 70		Median 75
Should Not Occur 16	Upper Quartile 90	Should Not Occur 16	Upper Quartile 80	Should Not Occur 16	Upper Quartile 80

Discussion of prediction 17. The early change between Rounds I and II in prediction 17 was a 10 percent decrease in the upper quartile. The lower quartile, median, and the number of panel members stating that the prediction should or should not occur remained identical in Rounds I and II, while in Round III the median increased 5 percent. The 10 percent decrease in the upper quartile caused the variance to be only 30 percent.

Implications of comments made by panel members. Although the panel agreed that CEU activities will lay claim to a greater share of public fund support, they were quick to point out that there will be an intensified battle over sharing of the educational dollar. The panel also pointed out that the total educational dollar is not likely to increase rapidly. The national emphasis on life-long learning has already caused some states to increase appropriations for continuing education activities.

Competitive Struggle for Funds

Prediction 18. Utilization of the CEU for funding purposes will increase the competitive struggle for funds within institutions of higher education.

TABLE 24

Presentation of Data for Prediction 18

Round I	(N=38)	Round II	(N=32)	Round III	(N=32)
Should Occur 58	Lower Quartile 50	Should Occur 59	Lower Quartile 50	Should Occur 72	Lower Quartile 50
	Median 65		Median 65		Median 80
Should Not Occur 42	Upper Quartile 90	Should Not Occur 41	Upper Quartile 90	Should Not Occur 28	Upper Quartile 90

Discussion of prediction 18. The probability that the utilization of the CEU for funding purposes will increase the competitive struggle for funds within institutions of higher education did not change between the lower quartile, median, and upper quartile in Rounds I and II. In Round III the median increased 15 percent, but the variance remained at 40 percent with the lower quartile being 50 and the upper quartile being 90. The largest change between rounds was a 14 percent increase in the probability that the prediction should occur by 1980.

Implications of comments made by panel members. "Now that continuing education administrators have the honor of the CEU record and a separate section in the budget, they are going to have to accept the responsibility for competition with other budget section heads and other educational functions for their 'share' of total educational funds." This comment by a panel member expressed the feelings of many panel members that the competitive struggle for funds was just beginning. It was pointed out that nothing affects academic tradition like money.

Equal Funding Support

Prediction 19. By 1980 funding support for CEU programs will equal the total funds expended for academic credit offerings.

TABLE 25

Presentation of Data for Prediction 19

Round I	(N=38)	Round II	(N=32)	Round III	(N=32)
Should Occur 32	Lower Quartile 10	Should Occur 41	Lower Quartile 10	Should Occur 47	Lower Quartile 10
	Median 30		Median 20		Median 20
Should Not Occur 68	Upper Quartile 70	Should Not Occur 59	Upper Quartile 50	Should Not Occur 53	Upper Quartile 50

Discussion of prediction 19. The prediction that funding support for CEU programs will equal the total funds expended for academic credit offerings caused the panel members to make some of their most drastic changes between rounds. There was a 20 percent decrease in the upper quartile between Rounds I and II, with the lower quartile remaining the same, and the median decreasing 10 percent. This prediction should not occur by 1980 as indicated by 53 percent of the panel members in the final round.

Implications of comments made by panel members. It was generally agreed by panel members that seven years was too short a time span for the funding support for CEU programs to equal the support for academic programs. Other comments were that change comes slowly in education, and most continuing education programs have paid their own way in the past and will continue, to a limited extent, to do so in the future.

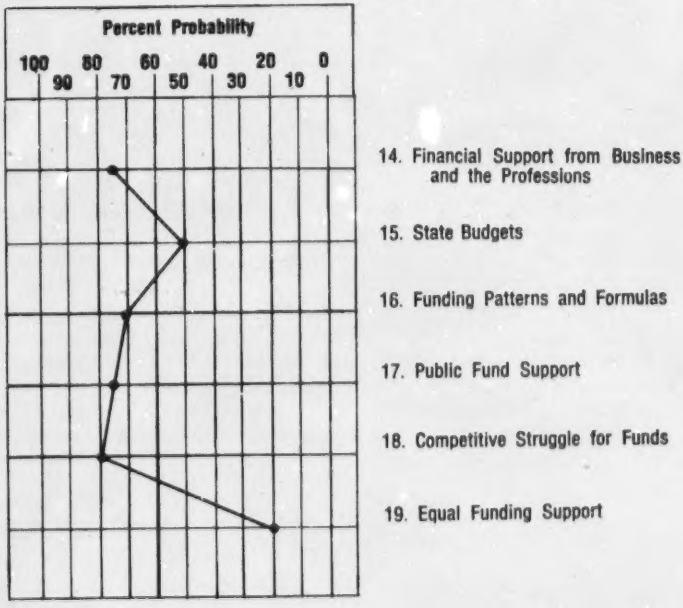
Analysis of Final Median Data on Finance

Of the six predictions related to the area of finance, the median range between the six predictions went from a low of 20 percent probability to a high of 80 percent probability as indicated in Table 26 below. This 60 percent variance between the median range was the second highest variance of the four areas reviewed. Prediction 18, which indicated that the utilization of the CEU for funding purposes will increase the competitive struggle for funds within institutions of higher education, was the prediction in this subject area having the highest median probability, 80 percent.

The prediction concerning the financial area that received the lowest median probability was prediction 19, which stated that by 1980 funding support for CEU programs will equal the total funds expended for academic credit offerings. In the final round this prediction also received the largest percent of any prediction in the study that it should not occur by 1980. A total of 53 percent of the panel members agreed that this prediction should not occur.

TABLE 26

Median of Panel's Final Prediction of Probabilities for 1980 For Areas Related to Finance



Non-Academic Utilization

There were seven predictions dealing with the area of non-academic utilization of the CEU by 1980.

Acceptance by Employers

Prediction 20. By 1980 employers will accept the CEU in determining who is hired and promoted and for upgrading of in-house and on-the-job educational programs, activities, and experiences.

TABLE 27

Presentation of Data for Prediction 20

Round I	(N=38)	Round II	(N=32)	Round III	(N=32)
Should Occur 92	Lower Quartile 30	Should Occur 84	Lower Quartile 45	Should Occur 91	Lower Quartile 45
	Median 50		Median 50		Median 50
Should Not Occur 8	Upper Quartile 75	Should Not Occur 16	Upper Quartile 75	Should Not Occur 9	Upper Quartile 75

Discussion of prediction 20. Prediction 20 had a 15 percent increase in the lower quartile with the median and upper quartile remaining the same in Rounds I, II, and III. There remained a 30 percent variance between the lower and upper quartiles in Rounds II and III, and 91 percent of the panel members in the final round agreed that this prediction should occur by 1980.

Implications of comments made by panel members. When the CEU becomes more "visible" and more widely used, employer utilization of CEU records will be as routine as other types of records. Panel members again pointed out the importance of making the CEU meaningful so that employers will accept it in determining who is hired and promoted and for upgrading of in-house and on-the-job educational programs, activities, and experiences.

UPDATING AND RELICENSING

Prediction 21. The CEU will become the basis for updating and relicensing members of the major professional organizations.

TABLE 28

Presentation of Data for Prediction 21

Round I	(N=38)	Round II	(N=32)	Round III	(N=32)
Should Occur 95	Lower Quartile 50	Should Occur 97	Lower Quartile 50	Should Occur 100	Lower Quartile 50
	Median 60		Median 70		Median 75
Should Not Occur 5	Upper Quartile 80	Should Not Occur 3	Upper Quartile 75	Should Not Occur 0	Upper Quartile 75

Discussion of prediction 21. The lower quartile remained at 50 percent for all rounds, while the upper quartile decreased 5 percent between Rounds I and II, and the median increased 15 percent from Round I to Round III. This provides a variance of 25 percent between the lower and upper quartiles. In Round III, 100 percent of the panel members responding indicated that this prediction should occur by 1980.

Implications of comments made by panel members. Again the panel members pointed out that the CEU will have to become more widely used and accepted before it will become the basis for updating and relicensing members of major professional organizations. Also input will be needed from representatives of professional organizations to determine if this is a feasible and beneficial use of the CEU.

PROFESSIONAL ORGANIZATIONS

Prediction 22. More professional organizations will rely upon the established educational institutions for their continuing education needs because of the CEU.

TABLE 29

Presentation of Data for Prediction 22

Round I	(N=38)	Round II	(N=32)	Round III	(N=32)
Should Occur 97	Lower Quartile 50	Should Occur 94	Lower Quartile 50	Should Occur 97	Lower Quartile 60
	Median 60		Median 65		Median 70
Should Not Occur 3	Upper Quartile 80	Should Not Occur 6	Upper Quartile 75	Should Not Occur 3	Upper Quartile 75

Discussion of prediction 22. Prediction 22 had changes in the lower quartile, median, and upper quartile during the three rounds. The lower quartile and median increased 10 percent, while the upper quartile decreased by 5 percent. These changes reduced the variance between the upper and lower quartiles to only 15 percent.

Implications of comments made by panel members. Because of the flexibility the CEU will provide in program construction, more professional organizations will rely upon educational institutions for their continuing education needs. If colleges and universities produce valid and reliable programs, then it will be impractical for businesses to develop their educational programs without assistance from institutions of higher education.

LIFE-LONG LEARNING

Prediction 23. The CEU will emerge as a system of higher education which offers life-long learning as a meaningful reality, especially to the employed population.

TABLE 30

Presentation of Data for Prediction 23

Round I	(N=38)	Round II	(N=32)	Round III	(N=32)
Should Occur 92	Lower Quartile 50	Should Occur 91	Lower Quartile 65	Should Occur 97	Lower Quartile 70
	Median 75		Median 75		Median 80
Should Not Occur 8	Upper Quartile 90	Should Not Occur 9	Upper Quartile 90	Should Not Occur 3	Upper Quartile 90

Discussion of prediction 23. A total of 97 percent of the panel members in Round III stated that the CEU should emerge as a system of higher education which offers life-long learning as a meaningful reality, especially to the employed population. There was a 20 percent increase in the lower quartile between Rounds I and III, with the median increasing 5 percent and the upper quartile remaining the same. This increase in the lower quartile decreased the variance between the lower and upper quartiles from 40 to 20 percent.

Implications of comments made by panel members. The CEU provides for the implementation of the philosophy of adult education, which means adults can learn throughout life in non-traditional settings, formats, and scheduling patterns, with recorded evidence of such efforts. Panel members generally agreed that the CEU will benefit the life-long learning concept, but they felt that it may take more than seven years to realize its full impact.

Contracts for Non-Credit Education

Prediction 24. Because the CEU provides a more accurate measure for continuing education, the number of contracts, for non-credit education with industries, foundations, and government agencies will increase by 1980.

TABLE 31

Presentation of Data for Prediction 24

Round I	(N=38)	Round II	(N=32)	Round III	(N=32)
Should Occur 100	Lower Quartile 60	Should Occur 97	Lower Quartile 60	Should Occur 100	Lower Quartile 70
	Median 75		Median 75		Median 80
Should Not Occur 0	Upper Quartile 90	Should Not Occur 3	Upper Quartile 90	Should Not Occur 0	Upper Quartile 90

Discussion of prediction 24. There were no significant changes by the panel members between Rounds I and II concerning prediction 24, but in Round III the lower quartile increased 10 percent and the median increased 5 percent. The variance between the lower and upper quartiles changed to 20 percent in Round III, with the lower quartile being 70 percent, the upper quartile 90 percent, and the median 80 percent. All panel members responding to Rounds I and III indicated that this prediction should occur by 1980.

Implications of comments made by panel members. Proper accountability and measurement of continuing education activities will cause the number of contracts for non-credit education with industries, foundations, and government agencies to increase. Again, as the CEU is recognized as a measure of value in continuing education, it will stimulate more usage.

LABOR UNIONS

Prediction 25. Labor unions will include CEU course requirements in the educational benefits section of their union contracts by 1980.

TABLE 32

Presentation of Data for Prediction 25

Round I	(N=38)	Round II	(N=32)	Round III	(N=32)
Should Occur 95	Lower Quartile 30	Should Occur 97	Lower Quartile 40	Should Occur 100	Lower Quartile 40
	Median 50		Median 50		Median 50
Should Not Occur 5	Upper Quartile 75	Should Not Occur 3	Upper Quartile 75	Should Not Occur 0	Upper Quartile 60

Discussion of prediction 25. In Round III, 100 percent of the panel members stated that labor unions would include CEU course requirements in the educational benefits section of their union contracts by 1980. There was a 10 percent increase in the lower quartile between Rounds I and II and a 15 percent decrease in the upper quartile between Rounds II and III. The median remained the same between rounds, and the variance in the final round was only 20 percent.

Implications of comments made by panel members. Panel members agreed that seven years was too short a time span to get labor unions to include CEU course requirements in the educational benefits section of their union contracts. It was pointed out that the CEU and its place in education is simply not well enough known or understood by industry at this time.

GOVERNMENT SPONSORSHIP

Prediction 26. Because of the CEU, government sponsorship of continuing education will increase significantly since specific national needs can be met.

TABLE 33

Presentation of Data for Prediction 26

Round I	(N=38)	Round II	(N=32)	Round III	(N=32)
Should Occur 95	Lower Quartile 50	Should Occur 97	Lower Quartile 50	Should Occur 100	Lower Quartile 50
	Median 50		Median 50		Median 50
Should Not Occur 5	Upper Quartile 75	Should Not Occur 3	Upper Quartile 75	Should Not Occur 0	Upper Quartile 75

Discussion of Prediction 26. The lower quartile, median, and upper quartile for prediction 26 remained the same between Rounds I, II, and III. It is significant to point out that the lower quartile and median were both 50 percent, while the upper quartile was 75 percent. This yielded a variance of 25 percent between the lower and upper quartiles.

Implications of comments made by panel members. Panel members again stressed the responsibility of continuing education professionals to show government how the CEU programs could be designed to meet specific national needs. Seven years was again mentioned as a short period, but it was generally agreed that government sponsorship is a "new frontier."

Analysis of Final Median Data on Non-Academic Utilization

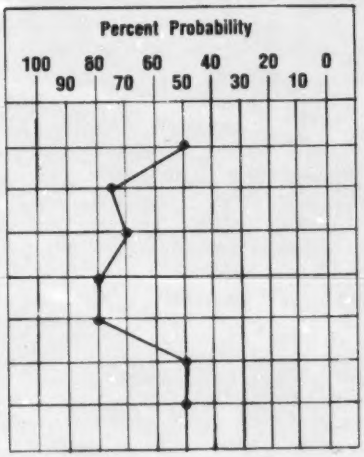
The two predictions receiving the highest median percentage of probability as indicated in Table 34 below were predictions 23 and 24. Prediction 23 indicates that the CEU will emerge as a system of higher education which offers life-long learning as a meaningful reality, especially to employed populations. Prediction 24 indicates that, because the CEU provides a more accurate measure for continuing education, the number of contracts for non-credit education with industries, foundations, and government agencies will increase by 1980. Of the panel members reporting, it was agreed by 97 and 100 percent respectively that predictions 23 and 24 should occur by 1980.

There were three predictions in the non-academic utilization area that have a median probability of 50 percent. These are predictions 20, 25, and 26. Prediction 20, however, with 91 percent of the panel members agreeing that it should occur, was the prediction with the lowest percentage of agreement among panel members that it should occur by 1980.

The non-academic area was the area having the second largest number of questions. Only the administrative area with twelve questions was larger. However, it should be pointed out that the administrative area had a 55 percent variance between the lowest median and highest median among the predictions, while the non-academic area had only a 30 percent variance between its lowest and highest median in the seven predictions presented.

TABLE 34

Median of Panel's Final Prediction of Probabilities for 1980 For Areas Related to Non-Academic Utilization



20. Acceptance by Employers
21. Updating and Relicensing
22. Professional Organizations
23. Life-Long Learning
24. Contracts for Non-Credit Education
25. Labor Unions
26. Government Sponsorship

Summary and Conclusions

This final chapter is devoted to analyzing the data presented. A review is made of each subject area discussing the significant points concerning each area, conclusions of this study, and recommendations for further study.

Summary

Administration

Of the twelve predictions in the area of administration, the one that seems certain to occur by 1980 is that a majority of accredited colleges and universities will be awarding CEU's and maintaining permanent records for program participants who have earned units. That this should occur by 1980 was indicated by 100 percent of the panel members, and the median probability in the final round was 80 percent. This high probability concerning usage indicates the need to know more about how the CEU will be utilized. Therefore, the results of this study may prove to be of even more benefit than initially expected.

Several panel members stated that the utilization of the CEU would depend a great deal on the efforts of regional accrediting associations. Because of the efforts of the Southern Association of Colleges and Schools and the interest of the other accrediting associations, the CEU will gain widespread use quickly. Also, because the CEU is a much needed measuring device for non-credit activities, it will be accepted without delay.

The CEU will also cause the quality of continuing education programs to improve by 1980 as indicated by a high median probability of 80 percent in the final round. A total of 97 percent of the panel members agreed that this should happen. Since the panel also predicted a 70 percent probability that the CEU will become the basis for determining the full-time equivalent non-credit enrollment for institutions of higher education, it will be important to have high quality continuing education programs.

Even with higher quality programs, the probability that by 1980 CEU's will be accepted by institutions as equal to academic credit, satisfying course prerequisites, satisfying selected course requirements, or applying toward an undergraduate degree has a median probability of only 50 percent. Although 81 percent of the panel members stated that the CEU programs should be used to satisfy course prerequisites, it was generally thought that the entrenched bureaucracy of academic administrators would fight this and be successful. However, one panel member pointed out that since more institutions are moving toward competency demonstrations as criteria for entry, and recognizing that CEU programs may well contribute to one's knowledge and/or competence in a variety of areas, it may be that selected combinations of CEU credits will be used for satisfying certain course prerequisites.

There was not a great deal of agreement in the general area of record keeping. However, the median probability of 75 percent in the final round indicated that the records will be maintained by the registrar. Only 65 percent of the panel members thought that the volume of CEU records would surpass the record keeping for academic credits.

There was less consensus concerning the establishment of a national data record-keeping system than for any other prediction in the study. The median probability in the final round of prediction 5 was 50 percent variance between the lower and upper quartiles. The lower quartile was 25 percent, and the upper

quartile was 75 percent. Comments made by panel members tended to point out the lack of present information on CEU record keeping and the difficulty of getting it accepted on a national level by 1980.

Faculty

There were five predictions concerning the utilization of the CEU in matters relating to the faculty, and the most significant point made was that the CEU will be used to measure faculty work load and participation in continuing education by 1980. Of the panel members responding in the final round, 100 percent agreed this should happen, and the median probability that it will happen was 75 percent. The ability to measure more accurately faculty participation in noncredit activities should also enhance the willingness of faculty members to participate in continuing education activities and could possibly improve the recognition and reward for faculty effort in continuing education.

The high probability that the CEU will be used to measure faculty work load may account for the high probability given to the prediction that faculty members will assume more responsibility for attendance records and evaluation procedures for students in CEU programs. A total of 88 percent of the panel members agreed that this should happen, and a median probability of 75 percent was computed in the final round that it will happen by 1980. This prediction is related to the prediction that the CEU will improve the quality of continuing education programs.

There was little consensus among panel members concerning faculty recognition for CEU programs being equal to academic program recognition and the increased demand for temporary, part-time faculty members. Both predictions had a median probability in the final round of 50 percent.

Many comments made by panel members pointed out that the relationship of the CEU to faculty matters was tied to the potential role that the CEU would play in funding for higher education. If institutional funds were in part dependent upon the CEU, greater emphasis would be placed on how the unit related to the faculty.

Finance

There were six predictions made concerning the utilization of the CEU in financial matters. The panel members agreed that the most significant prediction was that financial support from business and professional societies for continuing education will increase by 1980, because the CEU will allow institutions to plan more activities fulfilling the needs of the professions and business. A total of 97 percent agreed this should happen, and the median probability that it will happen was 75 percent. Consensus among panel members concerning this prediction showed a variance of only 15 percent.

The probability that state-appropriated budgets for continuing education will be based on the full-time equivalent student enrollment in CEU programs by 1980 was predicted with only a 50 percent assurance. Although 97 percent of the panel members agreed it should happen, it was generally accepted that it will take longer than seven years to occur. It was predicted that it would happen in some states but would not receive widespread acceptance.

Not only was there a wide range of probabilities concerning the prediction that funding support for CEU programs will equal the total funds expended for academic credit by 1980, but also 53 percent of the panel members agreed it should not occur by 1980. It was pointed out by the panel members that the

cost of producing CEU programs was less than the cost of academic programs, and it was felt that continuing education activities will be mostly self-supporting for a long time to come. If this prediction ever occurs, it was agreed that it will take longer than seven years.

Non-Academic Utilization

There were seven predictions concerning non-academic utilization of the CEU. Because the CEU provides a more accurate measure of continuing education, the number of contracts for non-credit education with industries, foundations, and government agencies will increase by 1980. This was predicted with an 80 percent probability as indicated by the median in the final round. A total of 100 percent of the panel members agreed that this should happen. Improved accountability, simplicity of measurement, and increased quality afforded by the CEU were some of the reasons panel members thought that this would occur.

The results of this prediction were in line with the panel members' agreement that because of the CEU more professional organizations will rely upon the established educational institutions for their continuing education needs by 1980. A total of 97 percent of the panel members agreed that this should happen, and only 15 percent separated the lower and upper quartiles in the final round. One panel member pointed out that as the CEU becomes more accepted, it will be increasingly impractical for businesses and the professions to conduct their own continuing education programs.

A total of 100 percent of the panel members agreed that the CEU should become the basis for updating and relicensing members of the major professional organizations. They also predicted with a median probability of 75 percent in the final round that this will occur by 1980. Comments made by panel members pointed out that a number of professional organizations are already using the CEU as the means for recording continuing education activities for relicensing.

All panel members agreed that labor unions should include CEU course requirements in the educational benefits section of their union contracts by 1980 and that because of the CEU, government sponsorship of continuing education should increase significantly since specific national needs could be met. However, the median probability for these two predictions was only 50 percent in the final round. Several panel members stated that this would occur, but that it would take more than seven years.

Conclusions

Upon an analysis of the data collected, the following conclusions were made concerning the utilization of the CEU by 1980:

1. That a majority of accredited colleges and universities will be awarding CEU's and maintaining permanent records for program participants who have earned units.
2. That the quality of continuing education programs will improve because of the criteria set by regional accrediting agencies that must be met before CEU's are awarded.
3. That CEU records will be maintained by the registrars of institutions.
4. That the CEU will be used to measure faculty work load and participation in continuing education.
5. That faculty members will assume more responsibility for attendance records and evaluation procedures for students in CEU programs.

6. That CEU activities will have a greater share of public fund support for higher education and that this increased funding will increase the competitive struggle for funds within institutions of higher education.
7. That state-appropriated budgets for continuing education will be based on the full-time equivalent student enrollment in continuing education programs.
8. That financial support for continuing education from business and professional societies will increase because of the CEU.
9. That the CEU will become the basis for updating and relicensing members of the major professional organizations.
10. That because of the CEU, institutions of higher education will be able to serve the continuing education needs of industry and government better, and therefore, the number of contracts for non-credit education will increase.

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